

| Application No. | Applicant(s)      |    |
|-----------------|-------------------|----|
| 09/749,258      | HENNENHOEFER ET A | L. |
| Examiner        | Art Unit          |    |
| Reuben M. Brown | 2611              |    |

|           |          | 1        | Reje          | cted    |          | -        | (TI               | hrou<br>Ca | igh n    | llec      | ner<br>d | al)       |         |          | N        | N        | on-    | Ele      | cted     |          | A        |         | Ap      | pea      | ıl       |           |         | •  |
|-----------|----------|----------|---------------|---------|----------|----------|-------------------|------------|----------|-----------|----------|-----------|---------|----------|----------|----------|--------|----------|----------|----------|----------|---------|---------|----------|----------|-----------|---------|----|
|           |          | =        | Allo          | wed     |          | +        |                   | Re         | stric    | tec       | d<br>    |           |         |          | ١        | Ir       | ter    | fere     | nce      |          | 0        | •       | Obje    | ecto     | ed       |           |         |    |
| Cla       | aim      | Г        |               | Date    | е        |          | <b></b> 1         | Cla        | im       |           | _        | _         | D       | ate      | _        | _        |        |          |          | laim     |          | _       |         | Dat      | e        |           | _       | ]  |
| Final     | Original | 12/13/04 |               |         |          |          |                   | Final      | Original |           |          |           |         |          |          |          |        |          | Final    | Original |          |         |         |          |          |           |         |    |
| -         | 1        | 7        | Н             | +       | H        | Н        | +                 |            | 51       | Н         | Н        | +         | +       | _        | -        | $\dashv$ | +      | +        | $\vdash$ | 101      | Н        | +       | +       | +        | Н        | $\forall$ | +       | 1  |
| -         | 2        | 1        |               | $\neg$  | $\vdash$ | П        | 7 1               |            | 52       | П         |          | $\neg$    | $\top$  |          |          | $\neg$   | T      | ٦.       |          | 102      |          | Т       | T       |          |          | П         |         | 1  |
|           | 3        | П        |               |         |          | П        |                   |            | 53       |           |          |           | $\Box$  |          |          |          | I      |          |          | 103      |          |         | T       |          |          |           | $\perp$ | ]  |
|           | 4        | V        |               |         | Щ        |          |                   |            | 54       | Ш         |          | Ш         | 4       |          |          |          | _      | _        |          | 104      | Ш        | _       | $\perp$ | ╙        |          | Ш         | $\perp$ | 4  |
|           | 5        | Õ        |               | _       | $\perp$  | Ш        | ЩΙ                |            | 55       |           |          | 4         | 4       |          | $\perp$  | _        | 4      | 4        | $\vdash$ | 105      | Н        | _       | +       | 1        |          | Н         |         | 4  |
| -         | 6        | 0        | -             | _       |          | Ш        | 41                |            | 56       | Н         |          | 4         | +       | _        | $\dashv$ | _        | -      | 4        | $\vdash$ | 106      | $\vdash$ | +       | +       | ⊢        | Н        | Н         | +-      | 4  |
| <b>—</b>  | 7        | 4        | -             | +       | Н-       | Н        |                   |            | 57       | Н         | Н        | $\dashv$  | +       | 4        | $\dashv$ | $\dashv$ | +      | -        | $\vdash$ | 107      | Н        | +       | +       | ╀        | Н        | H         | +       | -  |
| $\vdash$  | 9        | H        | ++            | +       | $\vdash$ | Н        | $\dashv$          |            | 58<br>59 | Н         | Н        | +         | +       | -        | $\dashv$ | $\dashv$ | +      | $\dashv$ | $\vdash$ | 108      | Н        | +       | +-      | +        | Н        | +         | +       | +  |
| $\vdash$  | 10       | H        | ++            | +       | +        | Н        |                   | -          | 60       | Н         | Н        | +         | +       | ۲        | +        | +        | +      | -1       | $\vdash$ | 110      | H        | +       | +-      | +        | $\vdash$ | +         | +       | 1  |
| $\vdash$  | 11       | Н        | $\vdash$      | +       | $\vdash$ | Н        | $\dashv$          |            | 61       | Н         | Н        | +         | +       | _        | $\neg$   | _        | +      | -        | -        | 111      | Н        | +       | +       | +        | Н        | $\forall$ | +       | 1  |
|           | 12       | н        | $\Box$        | -       | $\vdash$ | Н        | ⊣ i               |            | 62       | Н         |          | $\forall$ | $^{+}$  | ٦        | _        | _        | +      | 1        | $\vdash$ | 112      | Н        | $^{+}$  | $\top$  | $\vdash$ | Н        | $\forall$ | $\top$  | 1  |
|           | 13       | Ħ        | -             |         |          | П        | <b>-1</b> 1       |            | 63       | П         |          | $\top$    | ナ       | 7        | $\neg$   | $\neg$   | _      | _        | $\vdash$ | 113      | П        | $\top$  | 1       |          |          | $\top$    | $\top$  | 1  |
|           | 14       | т        |               |         |          | П        | _                 |            | 64       | П         |          | $\neg$    | 1       |          |          | $\neg$   | T      | _        |          | 114      | П        | $\top$  | T       | Τ        |          | $\neg$    | $\neg$  | 1  |
|           | 15       | П        |               | $\top$  |          | П        | 7 1               |            | 65       | П         |          |           | T       |          | $\neg$   |          | Т      | 7        |          | 115      | П        | П       |         | Г        |          |           |         | ]  |
|           | 16       | П        |               |         |          |          |                   |            | 66       |           |          | $\Box$    | Т       |          |          |          | Т      |          |          | 116      |          | Т       | Г       |          |          |           |         | ]  |
|           | 17       | П        |               |         |          |          |                   |            | 67       |           |          |           | $\perp$ |          |          | $\Box$   |        |          |          | 117      |          | 1       |         |          |          |           |         | ]  |
|           | 18       |          |               |         |          |          | _                 |            | 68       |           |          | _         | 4       | _        | _        | _        | _      | _        | _        | 118      | ш        | 4       | 1       | ╙        | Ш        | Щ         |         | 1  |
|           | 19       | Щ        | $\perp \perp$ |         |          | Ш        | _                 |            | 69       | Ш         |          | 4         | 4       | _        | _        | 4        | 4      | 4        | _        | 119      | $\perp$  | 4       | $\perp$ | _        | Ш        | -         | $\perp$ | 4  |
| $\vdash$  | 20       | Ц        | $\rightarrow$ |         |          | Ш        | <b>⊣</b> ∣        |            | 70       | Ш         |          | 4         | 4       | 4        | _        | 4        | 4      | 4        | $\vdash$ | 120      |          | 4       | 4-      | 1        |          | $\vdash$  | $\perp$ | 4  |
| _         | 21       | V        | $\rightarrow$ |         | +        | Н        |                   | _          | 71       | $\vdash$  | Н        | +         | 4       | 4        | -        | -        | -      | 4        | -        | 121      | $\vdash$ | -       | +-      | ⊢        | Ш        | -         | +       | 4  |
| -         | 22       | 7        | $\rightarrow$ | -       | -        | Н        |                   |            | 72<br>73 | Н         | Н        | +         | +       | -        | -        | $\dashv$ | +      | -        | $\vdash$ | 122      | $\vdash$ | +       | +-      | ⊢        | Н        | +         | +       | 4  |
| $\vdash$  | 23<br>24 | H        | +             | +       | -        | Н        |                   | _          | 74       | $\dashv$  | Н        | +         | +       | $\dashv$ | $\dashv$ | +        | +      | -        | -        | 123      | $\vdash$ | +       | +       | Н        | Н        | +         | +       | 1  |
| $\vdash$  | 25       | ₩        | +             | -       | +        | Н        | $\dashv$          |            | 75       | $\forall$ | Н        | +         | +       | $\dashv$ | $\dashv$ | $\dashv$ | +      | $\dashv$ | -        | 125      | H        | +       | +       | ╁        | -        | -+        | +       | 1  |
| $\vdash$  | 26       | ₩        | +             | +       | +        | Н        |                   | _          | 76       | $\vdash$  | Н        | $^+$      | +       | +        | -1       | +        | $^{+}$ | -        | $\vdash$ | 126      | -        | +       | +       | $\vdash$ | Н        | +         | +       | 1  |
| $\vdash$  | 27       | +        | +             | _       | _        | Н        | <b>⊣</b> 1        |            | 77       | $\vdash$  |          | $^{+}$    | +       | 1        |          |          | $^{+}$ | _        | $\vdash$ | 127      | Н        | +       | +       |          | Н        | $^{+}$    | _       | 1  |
|           |          | 1        | $\vdash$      |         | _        | Н        | <b>-1</b> 1       |            | 78       | $\forall$ |          | _         |         | 1        | $\neg$   |          | 十      | _        | -        | 128      | $\vdash$ | $^{+}$  | +       | т        |          | $\top$    |         | 1  |
| $\vdash$  | 29       | V        | $\neg$        |         | -        | П        | <b>-</b> 1 1      |            | 79       | $\Box$    |          | _         |         | T        | $\neg$   |          | 寸      | _        |          | 129      |          | +       | 1       |          |          | $\neg$    |         | 1  |
| $\Box$    | 30       | ō        | $\neg$        |         |          | П        | <b>-1</b> i       |            | 80       | П         | П        | $\neg$    | T       | ٦        | 7        |          | T      | 7        |          | 130      | П        |         |         | П        |          |           |         | 1  |
|           | 31       | v        |               |         |          |          |                   |            | 81       |           |          |           | T       |          | $\Box$   |          | $\Box$ |          |          | 131      |          | $\Box$  | T       | П        |          | П         |         | ]  |
|           | 32       | 0        |               |         |          | П        | _  [              |            | 82       |           |          |           | $\perp$ | _        |          |          | T      | _        |          | 132      |          |         |         |          |          |           | $\perp$ | 1  |
|           | 33       | Y        |               | $\perp$ |          | Ш        | <b>⊣</b>          |            | 83       |           |          | _         | 1       | _        | _        | _        | 4      | 4        | $\vdash$ | 133      | Н        | $\perp$ | _       | $\vdash$ |          | _         | $\perp$ | 1  |
|           | 34       | ν        | 4             | +       | -        | Н        |                   |            | 84       | Н         | Ш        | +         | 4       | 4        | _        | _        | 4      | 4        | -        | 134      | Н        | +       | +       | $\vdash$ | Н        | 4         | +       | 4  |
| $\vdash$  | 35       | H        | +             | +       | $\vdash$ | $\vdash$ |                   |            | 85       | $\vdash$  | Н        | +         | +       | 4        | -        | $\dashv$ | +      | 4        | -        | 135      | Н        | +       | +       | $\vdash$ | Н        | +         | +       | -  |
| $\vdash$  | 36<br>37 | Н        | +             | +       | -        | $\vdash$ | $\dashv$ $\vdash$ | _          | 86<br>87 | $\vdash$  | $\dashv$ | +         | +       | 4        | -        | -        | +      | +        | $\vdash$ | 136      | $\vdash$ | +       | +       | -        | Н        | +         | +-      | 1  |
| $\vdash$  | 38       | Н        | +             | +       | +        | Н        |                   |            | 88       | +         | Н        | +         | +       | +        | +        | $\dashv$ | +      | -        |          | 137      | H        | +       | +       |          | Н        | +         | +       | 1  |
| -         | 39       | Н        | ++            | +       |          | Н        | $\dashv$          | $\dashv$   | 89       | +         | -        | +         | +       | +        | +        | $\dashv$ | +      | -11      | -        | 139      | +        | +       | +       |          | Н        | +         | +       | 1  |
| -         | 40       | Н        |               |         | _        | Н        | -11               |            | 90       | $\vdash$  | $\neg$   | $^{+}$    | +       | ┪        | _        | _        | +      | -1       | $\vdash$ | 140      | H        | +       | +       | $\vdash$ | Н        | +         | +       | 1  |
|           | 41       | Н        |               |         |          | Н        | -11               |            | 91       | $\vdash$  |          | +         | +       | 1        | _        | _        | $^{+}$ | 1        | -        | 141      | Н        | $^{+}$  | $^{+}$  |          | Н        | $\top$    | $\top$  |    |
|           | 42       | П        | $\dashv$      | $\top$  |          | П        |                   |            | 92       | $\Box$    | T        | $\top$    | $\perp$ | 7        | $\neg$   | $\neg$   | $\top$ |          |          | 142      | П        |         | t       |          |          | ⇉         | $\perp$ |    |
|           | 43       |          |               |         |          |          | _                 |            | 93       |           |          |           |         |          |          |          |        |          |          | 143      | □        | 1       | I       |          |          | ┚         | I       |    |
|           | 44       |          |               |         |          |          |                   |            | 94       |           |          | I         | T       | 1        |          | J        | I      | 7        |          | 144      | П        | T       | Γ       | Г        |          | I         | I       |    |
|           | 45       |          | $\Box$        |         |          | П        | _] [              |            | 95       | I         |          | I         | T       | _        |          |          | T      | _        |          | 145      | $\Box$   | 1       | 1       |          |          |           | T       | 1. |
| П         | 46       |          |               |         |          | Ш        | _                 |            | 90       | _         | $\Box$   |           |         | _        |          | _        |        | -        |          | 148      | П        |         | $\perp$ |          |          |           |         |    |
|           | 47       |          | $\Box$        | $\perp$ |          | Ц        | <b>⊣</b> [        |            | 97       | _         | _        | _         | $\perp$ | 4        |          | _        | _      | _        |          | 147      | Ш        | $\perp$ | $\perp$ | L        | Ш        | _         |         | -  |
| $\square$ | 48       | Ц        | +1            | $\perp$ | $\perp$  | Ц        | <b>⊣</b>          |            | 90       | _         | _        | 4         | 4       | 4        | 4        | _        | 4      | 4        | $\vdash$ | 148      | Ц        | 1       | +       |          | Ш        | 4         | +       | 1  |
| $\vdash$  | 49       | Н        | $\rightarrow$ | $\perp$ | $\perp$  | Н        |                   |            | 99       | -         | -        | 4         | +       | 4        | _        | -        | +      | 4        | $\vdash$ | 149      | Н        | +       | +       | $\vdash$ | Ш        | _         | +       | 1  |